

**REMARKS**

Claims 1, 18, and 27 have been amended for the sake of clarity. In particular, system claims 1 and 27 and corresponding method claim 18 have been amended to call for a fast backscatter detector comprising two elongated scintillator sections optically linked to at least one photon detector. Claim 27 has additionally been amended to delete from feature (c) an extraneous recitation of two elongated scintillator sections.

Each of the foregoing amendments is clearly supported by the original specification; particularly at page 9, lines 21-22; and Figures 3A-3B. Consequently, no new matter has been added.

Claims 14-17 have been cancelled to expedite prosecution.

The Examiner's indication that claims 1-5, 7-13, and 18-27 recite allowable subject matter, together with his withdrawal of: the rejection of claims 1-5, 7-12, 18-20, and 21-27 under 35 USC 102(b) or 103(a); the rejection of claims 1-27 under the judicially created doctrine of obviousness-type double patenting; and the objections to the drawings and the specification, are noted with appreciation.

As delineated by amended claims 1-5, 7-13, and 18-27, applicants' invention provides an x-ray scanning system and method for examining baggage and the like moved through the detection equipment by a conveyor. A pencil beam of x-rays is impinged and rapidly swept across the object. The system acquires images simultaneously using both a fast backscatter detector and a transmission detector. The combination of the two detection modalities

allows items having both high and low atomic weights to be detected and their relative positions inferred. The x-ray source typically is located below the conveyor system, while the two detectors are located on opposite sides of the object relative to the x-ray source. Advantageously, the fast backscatter detector used in applicants' system allows acquisition of a backscatter image that has far higher resolution and far lower levels of extraneous noise than are obtainable using prior art scanning systems. The improvement in resolution and noise level, in turn, results in far more reliable detection of the aforementioned contraband items.

The Examiner has objected to claims 1, 18, and 27 as being informal. Claims 1, 18, and 27 have thus been amended in accordance with the Examiner's suggestions by insertion of the phrase "said fast backscatter detector." Claim 27 has further been amended to delete an extraneous recitation of two elongated scintillator sections comprised in the fast backscatter detector.

Appreciation is expressed for the Examiner's constructive remarks with respect to claims 1, 18, and 27. It is respectfully submitted that any informalities on which the objection to claims 1, 18, and 27 was grounded have now been eliminated by the foregoing amendments.

Accordingly, reconsideration of the objection to claims 1, 18, and 27 as being informal is respectfully requested.

Claims 15 and 17 have been rejected under 35 USC 112, second paragraph, as being indefinite for failing to point out and distinctly claim the subject matter regarded as the invention.

In view of the cancellation of claims 15 and 17, it is submitted that the rejection of those claims as being indefinite has been mooted.

Accordingly, reconsideration of the rejection of claims 15 and 17 under 35 USC 112, second paragraph, is respectfully requested.

Claim 14 was rejected under 35 USC 102(b) as being anticipated by US Patent 4,795,910 to Henderson et al.

In view of the cancellation of claim 14, it is submitted that the rejection thereof over Henderson et al. has been mooted.

Accordingly, reconsideration of the rejection of claim 14 under 35 USC 102(b) as being anticipated by Henderson et al. is respectfully requested.

Claims 14 and 15 were rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,241,180 to Ishaque et al. in view of a printed reference by Nicholas Tsoulfanidis entitled "Measurements and Detection of Radiation."

In view of the cancellation of claims 14 and 15, it is submitted that the rejection thereof over the combined teachings of Ishaque et al. and Tsoulfanidis has been mooted.

Accordingly, reconsideration of the rejection of claims 14 and 15 under 35 USC 103(a) as being unpatentable over combination of Ishaque et al. and Tsoulfanidis is respectfully requested.

Claims 16 and 17 were rejected under 35 USC 103(a) as being unpatentable over US Patent No. 5,444,746 to Okamoto et al. in view of Tsoulfanidis.

In view of the cancellation of claims 16 and 17, it is submitted that the rejection thereof over the combined teachings of Okamoto et al. and Tsoulfanidis has been mooted.

Accordingly, reconsideration of the rejection of claims 16 and 17 under 35 USC 103(a) as being unpatentable over the combination of Okamoto et al. and Tsoulfanidis is respectfully requested.

**CONCLUSION**

In view of the amendment to claims 1, 18, and 27, the cancellation of claims 14-17, and the foregoing remarks, it is respectfully submitted that the present application has been placed in allowable condition. Reconsideration of the rejection and allowance of amended claims 1-5, 7-13, and 18-27, are earnestly solicited.

Respectfully submitted,

Arthur W. Mario et al.

By 

Ernest D. Buff  
(Their Attorney)  
Reg. No. 25,833  
(908) 901-0220